A NEW SOUTH AUSTRALIAN SHELL

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Of all the various South Australian shells one group has received more attention in conchological literature than any other. The two species in this genus are uncommon enough to have no common name. They belong to the genus *Ephippodonta*, a name which is an allusion to the unusual way in which the teeth of the hinge ride on one another.

The two species hitherto known were named by Professor Ralph Tate, who was a leader in the foundation of the Field Naturalists' Section, in the Proceedings of the Royal Society of South Australia; *Ephippodonta lunata* in 1886, and *E. macdougalli* two years later.

Ephippodonta are renowned for at least two characteristics, both of which are illustrated in the new species found by Mrs. J. J. Turnbull, an enthusiastic member of the Conchological Society of S.A. Unlike most other bi-valves they cannot close their valves together so that they are extended in one plane, and the animal is always exposed on the under side. The foot occupies the greater part of this area, and it is relatively large, so that the animal crawls rather like a snail. The other characteristic is that *Ephippodonta* is commensal: it lives in association with a prawn (*Axius plectorhincus*). This prawn makes a burrow of mud between and beneath the stones of reefs. A yellowish sponge is also usually associated with the burrow in which these tiny shells live with no harm, and presumably with benefit, to the prawn and themselves.

Above: Ephippodonta macdougalli
Centre: Ephippodonta turnbullae sp. nov Holotype
Below: Ephippodonta lunata

As far as is at present known, all three species of *Ephippodonta* are confined to South Australian waters.

EPHIPPODONTA turnbullae sp. nov.

Shell small, equivalve, almost equilateral, oval in outline, yellowish-white, flat.

Umbos prominent and smooth. The median areas of the valves are crowded with pupules, which are arranged in irregular rays. As these approach the ventral margin they increase by bifurcation to about 46 at the margin.

Ventral margin entire; dorsal margin a straight line, valves rounded at the ends of the dorsal line.

Dimensions: *Length, 10 mm. Umbo-ventral radius, 4.5 mm.*

Localities: *Type, Long Beach, five miles north of Stansbury, York Peninsula, South Australia; also Corny Point.*

Remarks: *The general characteristics of this species leave no doubt of its generic position. It varies from* E. lunata *Tate by the presence of papules. From* E. macdougalli *Tate it varies in the following respects: Entire ventral margin, prominent umbos, the rays which increase by bifurcation rather than by intercalation, pupules closer together and not placed on ribs, oval instead of circular outline. The type specimen illustrated here is being placed in the South Australian Museum.*

Some observations on the Fauna associated with the

CONIFEROUS FORESTS

of the South-East (S.A.)

by C. K. PAWSEY, Dip.For.

INTRODUCTION

The relationships between the quite extensive coniferous forests established during the past forty years and the fauna of the region—particularly the bird life—are still in the process of developing. It is early yet to foretell just what the ultimate associations will be. These planted forests, so entirely different from the native "bush", already total well over 100,000 acres in the Lower South East, and will continue to extend considerably.

The casual observations on which this note is based have been made chiefly on only one of the several units composing that area, namely, Mount Burr Forest Reserve, but here there are both the oldest stands of any extent and the greatest area of woods approaching the managed state to which the animal and bird life must finally be adjusted for survival.

The plantations here range up to over 40 years in age, with many regenerated areas, in the second rotation.

For the most part the native fauna has had to recede before this wholesale afforestation with softwoods. And this is not to be wondered at in view of the contrast that exists between the original and the substituted forest.

The native dry-sclerophyll forest was semi-open with many and various under-storey shrubs and herbs contributing to provide the food supply for a balanced population of insects, reptiles, birds and animals. On the